

TABLE E-1 Median Scores for the MH Scale of the SF-36
for Outpatients (n=1374) Seeing Mental Health Providers¹²

Sex	Median MH score (75th percentile)	n
Male age in years		
18 to 24	52 (68)	31
25 to 34	60 (80)	144
35 to 44	64 (72)	182
45 to 54	62 (76)	72
55 to 64	52 (76)	43
65 and older	58 (68)	18
Female age in years		
18 to 24	46 (68)	68
25 to 34	56 (72)	277
35 to 44	56 (72)	321
45 to 54	56 (68)	122
55 to 64	50 (63)	56
65 and older	52 (78)	40

TABLE E-2 Impact of MH Score on WOMAC Pain and Function Scores (adjusted for covariates)*

	With Substitution of Missing Values†		Without Substitution of Missing Values ‡	
	Parameter Estimate for SF-36 MH	P Value	Parameter Estimate for SF-36 MH	P Value
WOMAC pain score	N=743		N=676	
Preop.	0.136	0.0005	0.149	0.0003
3-mo	0.095	0.0143	0.090	0.0310
12-mo	0.128	0.0008	0.138	0.0008
24-mo	0.096	0.0109	0.101	0.0137
WOMAC function score	N=749		N=682	
Preop.	0.225	<0.0001	0.237	<0.0001
3-mo	0.129	0.0001	0.108	0.0029
12-mo	0.150	0.0001	0.141	0.0008
24-mo	0.106	0.0071	0.095	0.0247

*Parameter estimates and p values for preoperative SF-36 MH from the general linear models for WOMAC pain and function scores at each assessment time. The models were adjusted for age, gender, number of comorbid medical conditions, country, and center within country, and the follow-up scores were also adjusted for the respective preoperative score. †When follow-up data at twenty-four months were missing, the last-observation-carried-forward method was used to substitute the missing data with the twelve-month score, if available, for patients who to our knowledge had not died, had no other medical conditions that prevented them from continuing with the study, or had not undergone revision surgery. ‡Because of the possibility that underlying assumptions of the last-observation-carried-forward method of substitution may have affected the results, the results without substitution are also reported.

TABLE E-3 Repeated-Measures Comparisons of WOMAC Pain and Function Scores Between the Group with an SF-36 MH Score of <60 and the Group with an SF-36 MH Score of ≥60

	With Substitution of Missing Values*			Without Substitution of Missing Values†		
	SF-36 MH <60‡	SF-36 MH ≥60‡	P value§	SF-36 MH <60‡	SF-36 MH ≥60‡	P value§
WOMAC pain score	N=156	N=587		N=134	N=542	
Preop.	38.7 (31.9, 45.5)	44.2 (37.4, 50.9)	0.0027	37.5 (31.6, 43.5)	44.2 (38.6, 49.7)	0.0006
3-mo	66.2 (59.5, 72.8)	70.8 (64.2, 77.3)	0.011	70.2 (64.2, 76.2)	74.9 (69.3, 80.6)	0.016
12-mo	73.5 (67.0, 80.0)	78.1 (71.7, 84.5)	0.008	76.1 (70.2, 82.0)	81.2 (75.7, 86.7)	0.008
24-mo	76.0 (69.5, 82.4)	80.0 (73.5, 86.3)	0.025	79.2 (73.4, 85.0)	83.2 (77.8, 88.7)	0.033
WOMAC function score	N=161	N=588		N=137	N=545	
Preop.	38.1 (31.9, 44.3)	47.4 (41.2, 53.6)	<0.0001	40.3 (34.8, 45.8)	50.2 (44.9, 55.4)	<0.0001
3-mo	62.0 (56.3, 67.7)	66.6 (61.0, 72.2)	0.003	67.6 (62.5, 72.7)	71.8 (67.0, 76.6)	0.014
12-mo	64.1 (57.4, 70.8)	67.6 (60.9, 74.2)	0.053	67.7 (61.7, 73.6)	71.0 (65.4, 76.7)	0.089
24-mo	67.3 (60.6, 73.9)	69.3 (62.7, 75.9)	0.26	71.1 (65.2, 77.0)	72.9 (67.3, 78.4)	0.36

*When follow-up data at twenty-four months were missing, the last-observation-carried-forward method was used to substitute the missing data with the twelve-month score, if available, for patients who to our knowledge had not died, had no other medical conditions that prevented them from continuing with the study, or had not undergone revision surgery.

†Because of the possibility that underlying assumptions of the last-observation-carried-forward method of substitution may have affected the results, the results without substitution are also reported. ‡Values reported are the least square means (adjusted for preoperative score, age, gender, number of comorbid medical conditions, country, and center within country) with 95% confidence intervals. §P value for the significance of the difference between the least square means.

TABLE E-4 Comparison of the Preoperative-to-Follow-up Changes in the WOMAC Pain and Function Scores Between the Group with an SF-36 MH Score of <60 and the Group with an SF-36 MH Score of ≥60

	With Substitution of Missing Values*				Without Substitution of Missing Values†			
	No. of Patients (Total/SF-36 MH <60/SF-36 MH ≥60)	3-Mo Minus Preop. Score	12-Mo Minus Preop. Score	24-Mo Minus Preop. Score	No. of Patients (Total/SF-36 MH <60/SF-36 MH ≥60)	3-Mo Minus Preop. Score	12-Mo Minus Preop. Score	24-Mo Minus Preop. Score
WOMAC pain score	743/156/587				676/134/542			
Difference between <60 and ≥60 groups‡		-0.1 (-4.7, 4.5) p=0.97	-0.1 (-4.6, 4.4) p=0.96	0.5 (-3.9, 5.0) p=0.83		0.5 (-4.3, 5.4) p=0.83	0.4 (-4.4, 5.3) p=0.86	1.3 (-3.5, 6.0) p=0.60
SF-36 MH <60§		27.0 (18.4, 35.7)	34.4 (25.8, 42.9)	36.8 (28.4, 45.3)		32.0 (24.3, 39.6)	38.0 (30.3, 45.6)	41.0 (33.5, 48.5)
SF-36 MH ≥60§		27.1 (18.6, 35.7)	34.5. (26.0, 42.9)	36.3 (28.0, 44.7)		31.4 (24.3, 38.6)	37.6 (30.4, 44.7)	39.7 (32.7, 46.7)
WOMAC function score	749/161/588				682/137/545			
Difference between <60 and ≥60 groups‡		1.8 (-1.9, 5.5) p=0.34	2.6 (-1.5, 6.7) p=0.22	3.6 (-0.4, 7.6) p=0.08		2.6 (-1.5, 6.7) p=0.2	3.1 (-1.4, 7.6) p=0.18	4.1 (-0.2, 8.4) p=0.06
SF-36 MH <60§		21.2 (14.1, 28.3)	23.0 (15.2, 30.8)	25.8 (18.2, 33.4)		25.2 (18.9, 31.6)	25.1 (18.2, 32.0)	28.1 (21.4, 34.8)
SF-36 MH ≥60§		19.4 (12.3, 26.5)	20.4 (12.7, 28.2)	22.2 (18.2, 33.3)		22.6 (16.6, 28.7)	22.0 (15.4, 28.6)	24.0 (17.7, 30.4)

*When follow-up data at twenty-four months were missing, the last-observation-carried-forward method was used to substitute the missing data with the twelve-month score, if available, for patients who to our knowledge had not died, had no other medical conditions that prevented them from continuing with the study, or had not undergone revision surgery. †Because of the possibility that underlying assumptions of the last-observation-carried-forward method of substitution may have affected the results, the results without substitution are also reported. ‡The values indicate the differences in the least square means for the change in the score from the preoperative assessment to each follow-up time (adjusted for age, gender, number of comorbid medical conditions, country, and center within country), in points, between the <60 and ≥60 groups with the 95% confidence interval and the p value for the significance of the difference. §The values indicate the least square means for the change in the score from the preoperative assessment to each follow-up time (adjusted for age, gender, number of comorbid medical conditions, country, and center within country), in points, with the 95% confidence interval for each group.